Having thus described the preferred embodiment, the invention is now claimed to be:

1. An optical switch device for redirecting at least a portion of a beam of light traveling along a first direction to a second direction, said optical switch device comprising:

a base member; and

a reflective panel pivotally connected to the base member, said reflective panel comprising:

a first substrate;

a reflective layer disposed above the first substrate;

a heat sink layer disposed between the first substrate and the reflective layer.

2. The optical switch device according to claim 1, wherein the heat sink layer is comprised of hydrogenated amorphous carbon.

3. The optical switch device according to claim 1, wherein the heat sink layer is comprised of diamond-like carbon (DLC).

4. The optical switch device according to claim 1, wherein the heat sink layer is comprised of diamond.

5. The optical switch device according to claim 3, wherein the DLC heat sink layer has a thickness between 2.0 nm and 4000 nm.

6. The optical switch device according to claim 3, further comprising:

an actuator connected to the base member and the reflective panel, said actuator being operative to move the reflective panel between (i) a reflective state and (ii) a non-reflective state.

7. The optical switch device according to claim 1, wherein the reflective panel further comprises:

a liquid crystal layer disposed above the reflective layer;

a transmissive electrode layer disposed above the liquid crystal layer; and

a second substrate disposed above the transmissive electrode layer.

8. An optical communication system comprising:

a plurality of input fibers operative to emit light beams;

a first microelectromechanical mirror positioned to receive light beams emitted by at least one of the input fibers, said first microelectromechanical mirror being adapted to selectively reflect light beams along a plurality of paths, said first microelectromechanical mirror including:

a substrate;

a heat sink layer covering the substrate; and

a reflective layer covering the heat sink layer; and,

a plurality of output fibers operative to receive reflected light beams.

9. The optical communication system according to claim 8, wherein the heat sink layer is comprised of hydrogenated amorphous carbon.

10 The optical communication system according to claim 8, wherein the heat sink layer is comprised of diamond-like carbon (DLC).

11. The optical communication system according to claim 8, wherein the heat sink layer is comprised of diamond.

12. The optical communication system according to claim 11, wherein the DLC heat sink layer has a thickness between 2.0 nm and 4000 nm.

13. The optical communication system according to claim 8, further comprising:

a second microelectromechanical mirror positioned to receive light beams reflected by the first microelectromechanical mirror, said second micro-electromechanical mirror being adapted to reflect light beams along a path toward at least one of the output fibers.

14. In a reflective optical switch device for use in an optical communication system, said optical switch device having at least one substrate layer, and a reflective layer for reflecting laser beams incident upon a local area, a method of dissipating heat from the local area of the reflective surface comprising:

providing a hydrogenated amorphous carbon layer between the reflective layer and the substrate,

15. The method as set forth in claim 14, wherein the hydrogenated amorphous carbon layer is diamond-like carbon (DLC).

16. The method as set forth in claim 15, wherein the providing step includes:

plasma enhanced chemical vapor depositing (PECVD) the DLC on the substrate.

17. The method as set forth in claim 15 wherein the providing step includes:

chemical vapor depositing (CVD) the DLC on the substrate in a thickness of between 2.0 nm and 4000 nm.

18. The method as set forth in claim 15 wherein the providing step includes:

ion beam depositing (IBD) the DLC on the substrate

19. A method of making a reflective optical switch comprising:

(a) providing a first substrate layer;

(b) providing a hydrogenated amorphous carbon heat sink layer over the first substrate layer; and,

(c) providing a reflective layer over the heat sink layer, said reflective layer being suitable to redirect light beams incident thereon.

20. The method as set forth in claim 19, wherein step (b) includes:

plasma enhanced chemical vapor depositing a diamond-like carbon heat sink layer over the first substrate.

21. The method as set forth in claim 19 further including:

(d) providing a liquid crystal (LC) layer over the reflective layer;

(e) providing a transmissive electrode layer over the LC layer; and

(f) providing a second substrate over the transmissive electrode layer.